(No Model.)

2 Sheets—Sheet 1.

R. T. JONES.

FOOT SUPPORT.

No. 590,416. Patented Sept. 21, 1897.

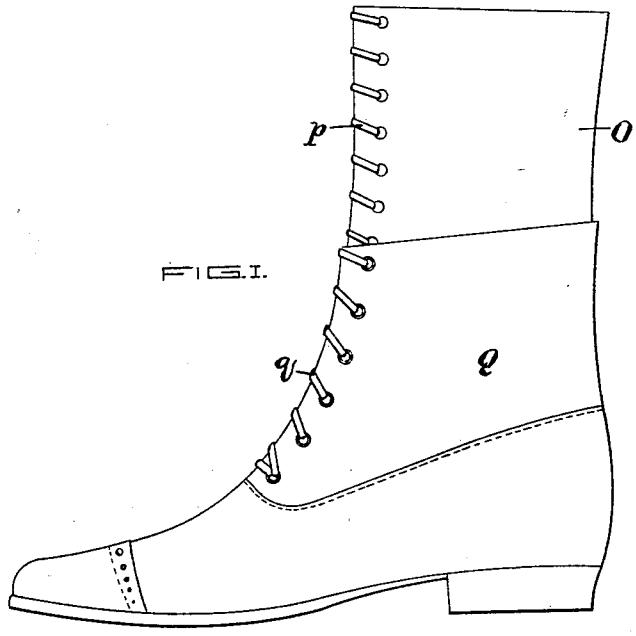


FIG. I.

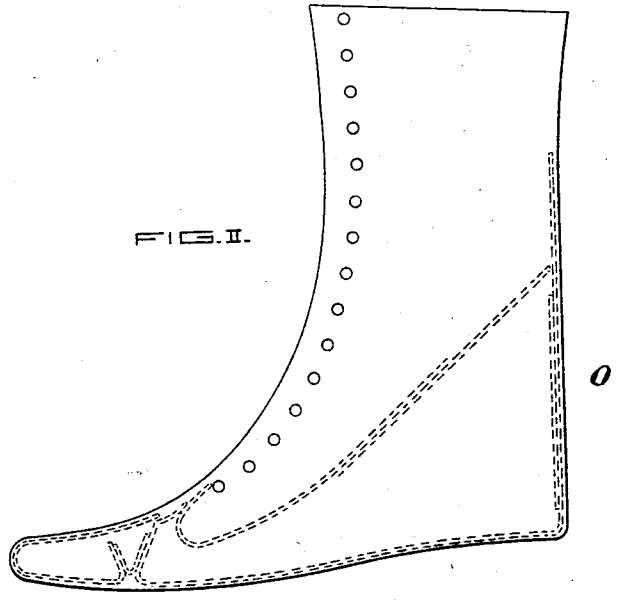


FIG. II.

WITNESSES:

Charles B. Manning Jr.

Chapin A. Ferguson

INVENTOR:

Richard T. Jones

By Chas B. Manning

Atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.)

2 Sheets—Sheet 2.

R. T. JONES.

FOOT SUPPORT.

No. 590,416. Patented Sept. 21, 1897.

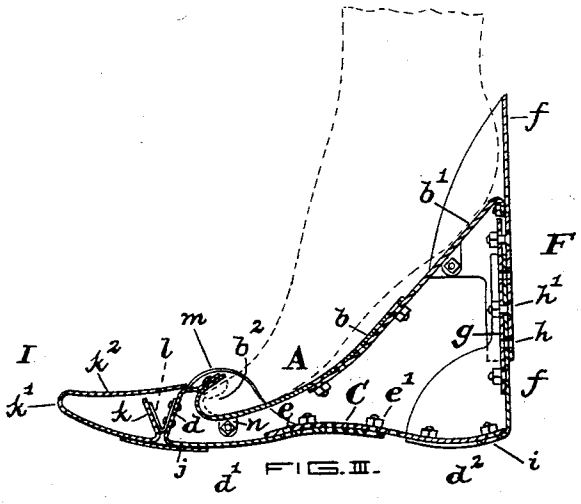


FIG. III.

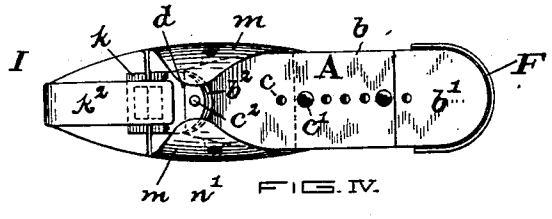


FIG. IV.

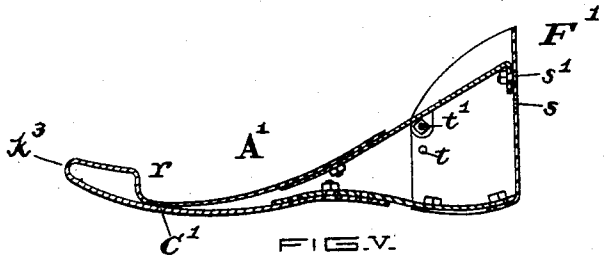


FIG. V.

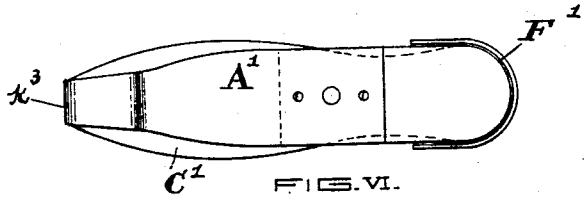


FIG. VI.

WITNESSES:

Charles B. Mann Jr.

Chapin A. Ferguson.

INVENTOR:

Richard T. Jones

By Chas B. Mann

Atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD T. JONES, OF BALTIMORE, MARYLAND.

FOOT-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 590,416, dated September 21, 1897.

Application filed June 29, 1897. Serial No. 642,779. (No model.)

To all whom it may concern:

Be it known that I, RICHARD T. JONES, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Foot-Supports, of which the following is a specification.

This invention relates to an improved foot-support for persons having one leg shorter than the other.

The object of the invention is to provide a mechanical foot-support to be worn on the foot of the short leg, which support shall be adjustable both as to length and height in order to adapt it to be worn by young persons who have not attained their growth and who for that reason may desire to gradually increase the size of the support as the foot grows.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of an ordinary shoe and the special shoe or foot-covering which contains the mechanical foot-support. Fig. 2 shows the special shoe or foot-covering and by broken lines indicates the inside mechanical foot-support. Fig. 3 is a vertical section of the adjustable mechanical foot-support for limbs three inches and over too short. Fig. 4 is a top view of same. Figs. 5 and 6 are views of a modified form of adjustable mechanical foot-support for limbs less than three inches too short.

The inclined supporting-plate A (see Figs. 2, 3, and 4) is the surface on which the sole of the foot rests. This plate is made in two pieces b b', which overlap each other at the center, and both pieces are provided with a central row of holes c and bolts c', by means of which the length of the plate may be increased or diminished to suit the size of the foot. The toe end of plate A is turned up at b^2. A foundation-plate C is designed to rest on the inner sole of a shoe and extends from the heel to the point where the ball-joint of the foot would ordinarily occur and here turns upward, as at d. This plate is also made in two pieces d' d^2, which overlap each other, and the said pieces are both provided with holes e and bolts e', by means of which the plate may be adjusted as to its length. At the rear or heel is an upright plate F, made in two pieces f f', which overlap each other, and a stay-plate g reinforces the said overlapped parts, which are provided with holes h and bolts h' to enable said upright heel-plate to be adjusted in height. The lower piece f of the heel-plate is attached by bolts i to the rear end of the foundation-plate C. The upturned part d of the foundation-plate is attached by a rivet c^2 to the turned-up part b^2 of the inclined plate A. A toe part I is jointed in front of the upturned part d of the foundation-plate. This toe part may be jointed thereto in any preferred manner, but in this instance the joint consists of a thin flexible strip j, which allows the toe part to bend upward. Where the toe part I adjoins the upturned part d, said toe part has an upbent end k, and a V-shaped spring of metal l is between said upturned part d and end k. This spring keeps the toe part I normally down. The toe part extends forward from this joint, then curves upward, as at k', and backward, as at k^2, and the end rests on the said upturned part d, where it slides whenever the toe part bends on its flexible joint, as it does when the wearer takes a step.

The foundation-plate C has at each side, where the turned-up part b^2 or toe-rest of the inclined plate occurs, a side inward-curved plate m. These opposite side plates project up from the said foundation-plate and curve over toward each other and meet the turned-up toe part b^2. Thus said toe part b^2 and the two side plates m together form a box-toe for the foot.

The inclined plate A has below the toe part a downbent flange n at each side, and a rivet n' is employed to connect each flange with one of the side plates m. This gives stability and strength for supporting the box-toe.

From this description it will be seen that I have provided a mechanical foot-support that is adjustable both as to length and height, and by changing the adjustments the same support may be worn by persons, say, twelve, fourteen, sixteen, or eighteen years of age.

This mechanical foot-support is to be inserted in a leather cover or heelless shoe O. (See Figs. 2 and 1.) The inclined plate A will be covered on top with a soft insole of any suitable material. The foot of the lame leg will be inserted in the shoe O and the

sole of the foot-rest on the covered incline plate A. A lace *p* will secure this cover and support the foot. When the shoe O is worn, it is to be inserted into an ordinary street-shoe Q and secured by a lace *q*.

In Figs. 5 and 6 is shown a modification of mechanical foot-support for limbs that are three inches and less too short. This modification shows the same features of adjustment both as to length and height. In this case the inclined supporting-plate A′ is turned up at *r* to form a toe-plate, but thence extends forward and down at k^3 and then back and becomes part of the foundation-plate C′. Thus in this case the inclined plate A′ is thin, and the foundation-plate C′ also is thin, and both plates at the toe-rest, where the ball of the foot would ordinarily occur, may yield a little under the weight of the person walking. The heel-plate F′ in this case is not adjustable in height, but the rear end of the inclined plate A′ is adjustable as to height by holes *s* and bolts *s′* in the back of heel-plate, and also holes *t* and bolts *t′* at the side of heel-plate. These adjustments permit the inclined plate at the heel to be set higher or lower. The construction of plates A′ and C′ shown in Figs. 5 and 6 enables a shoe to be made for a person whose leg is three inches or less too short.

In case of repairs being needed for the mechanical foot-support shown in either of the figures of the drawings the same may readily be made by a mechanic anywhere.

All the metal plates of this mechanical foot-support may be made, and preferably should be made, of aluminium, in order thereby to have it as light as possible.

Having thus described my invention, what I claim is—

1. A mechanical foot-support having in combination an inclined supporting-plate made in two pieces adjustable as to length; a foundation-plate also adjustable as to length; an upright heel-plate made in two pieces and adjustable as to height; and a toe part jointed at the front end of said foundation-plate.

2. A mechanical foot-support having in combination an inclined supporting-plate made in two pieces adjustable as to length and at the toe end turned up as at, b^2; a foundation-plate made in two pieces which are adjustable as to length, and which at its front where the ball-joint of the foot would ordinarily occur, is turned upward as at, *d*; and a toe-piece jointed to said turned-up part—said toe-piece extending forward from the joint curving upward, as at, *k′*, and backward as at, k^2, with its end resting on said turned-up part.

3. A mechanical foot-support having in combination an upright heel-plate; an inclined supporting-plate made in two pieces adjustable as to length and the rear end contacting with said heel-plate; and a foundation-plate made in two pieces which are adjustable as to length.

4. A mechanical foot-support having in combination an inclined plate whose toe end is turned up; a foundation-plate having at the point where the ball of the foot would ordinarily occur an upturned part, *d*, which is attached to said turned-up toe end on the inclined plate; a toe-piece jointed in front of said upturned part on the foundation-plate; and opposite side plates, *m*, attached to the foundation-plate and projecting up curving toward each other and meeting the said turned-up toe end.

In testimony whereof I affix my signature in the presence of two witnesses.

RICHARD T. JONES.

Witnesses:
CHAPIN A. FERGUSON,
CHARLES B. MANN, Jr.